

P A T E N T

**UNITED STATES PATENT AND TRADEMARK OFFICE**

In re: Tracee E.J. Eidenschink Confirmation No.: 1707  
Serial No.: 10/034,586 Examiner: Vi X. Nguyen  
Filing Date: December 27, 2001 Group Art Unit: 3734  
Docket No.: 1001.1459101 Customer No.: 28075  
For: CATHETER HAVING AN IMPROVED TORQUE TRANSMITTING SHAFT

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**CERTIFICATE FOR ELECTRONIC TRANSMISSION:**

The undersigned hereby certifies that this paper or papers, as described herein, are being electronically transmitted to the U.S. Patent and Trademark Office on this 13th day of February 2007.

By Kathleen L. Boekley  
Kathleen L. Boekley

Dear Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this Request.

This Request is being filed with a Notice of Appeal.

The review is requested for the reasons stated on the attached five sheets of arguments.

This Request is signed by an attorney or agent of record.

Respectfully submitted,

Tracee E.J. Eidenschink

By her Attorney,

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Date: 2/13/07

Attachment: Five Sheets of Pre-Appeal Request For Review Conference Brief

**P A T E N T**

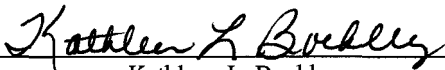
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**PRE-APPEAL REQUEST FOR REVIEW CONFERENCE BRIEF**

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By   
Kathleen L. Boekley

Dear Sir:

Appellant has carefully reviewed the Final Office Action dated September 13, 2006 and the Advisory Action dated December 7, 2006. Currently, claims 5-22 and 24-34 are pending in the application and have been rejected. Appellant hereby requests a pre-appeal conference and files this pre-appeal conference brief concurrently with a Notice of Appeal. Favorable consideration of the claims is respectfully requested.

Each pending independent claim, claims 5, 12, 25 and 32, was rejected under 35 U.S.C. § 102(b) over both Lundquist (U.S. Patent No. 5,329,923) and Tittel (U.S. Patent No. 4,465,482). Both of these rejections are based on an impermissibly broad interpretation of the claims. For example, claim 5 recites "a catheter having a torque transmitting shaft, comprising: an elongate shaft having...an outer surface...and a raised pattern of generally noncontiguous elements disposed on the outer surface."

Appellant has carefully reviewed both references and can find in neither reference any teaching of a catheter having (1) a raised pattern disposed on an outer surface or (2) a raised pattern made of noncontiguous elements. Indeed, the crucial distinction between the Examiner's

position and Appellant's position is in the term "raised pattern." The arguments put forward by the Examiner impermissibly give no patentable weight to the term "raised."

For example, in the Lundquist rejection, the Examiner asserts that "the Lundquist reference at least discloses in figure 4, a slot 41 can be equivalent as a raised pattern of generally noncontiguous elements disposed on the outer surface 37."<sup>1</sup> The Examiner appears to be arguing that a raised pattern can be made up of slots. However, slots are not raised; they do not project up from a lower surface. To the contrary, slots are recessed – the opposite of raised. This point is essential to a proper interpretation of the claim scope. While one could say that the slots of Lundquist are a pattern of generally noncontiguous elements, one cannot reasonably say that they are a *raised* pattern of generally noncontiguous elements.

In the Response to Arguments section, the Examiner also appears to be making the argument that a slot, such as that of Lundquist, can be equivalent to a raised pattern as claimed.<sup>2</sup> This is irrelevant to the question of anticipation. A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference.<sup>3</sup> The argument that a slot such as that of Lindquist can be functionally equivalent to a raised pattern is also incorrect. Unlike a pattern of slots through the wall of a catheter as taught by Lundquist, a raised pattern on the outer surface of a catheter can create desirably torquing characteristics without creating holes through to the catheter lumen.

A *raised* pattern, however, necessarily is a pattern made of material; the raised pattern can be created by applying material where it had not previously been or by removing some material to leaving the material of the pattern, but the raised pattern is not the missing material. There is a relationship between the raised pattern and the empty space; the raised pattern would not exist without the empty spaces, but nonetheless the raised pattern is not the empty spaces. (Analogously, an island is defined by the waters that surround it, but no one would mistake the waters for the island.) The problem with the Examiner's argument can further be seen in the attempts to fit the teaching of Lundquist into the language of the claim. Claim 5 recites "a raised pattern...disposed *on* the outer surface." The Examiner argues that slots (41) are the "raised

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<sup>1</sup> Final Office Action, page 5.

<sup>2</sup> Id.

<sup>3</sup> MPEP 2131 citing *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051 (Fed. Cir. 1987),

pattern (41).”<sup>4</sup> However, the broadest permissible interpretation is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.”<sup>5</sup> Appellant believes that a pattern of slots as shown by Lundquist would not be understood to be a raised pattern to a person of ordinary skill in the art. Now it is possible that a number of grooves are cut into a workpiece to create a raised pattern, but the term raised pattern refers to the material left behind and extending up from the bottom of the grooves and not to the grooves themselves. However, if the Examiner were to adopt this (reasonable and permissible) interpretation, it would be perfectly clear that Lundquist does not anticipate the claimed invention. For example, claim 1 recites “a raised pattern of generally *noncontiguous* elements.” It can be seen from the face of Lundquist that the elements of the catheter left behind after the slots have been cut are contiguous.

Similarly claim 12 recites “a raised pattern.” Claim 12 also recites “wherein the raised pattern comprises a plurality of generally noncontiguous raised shapes, adjacent raised shapes being separated when the shaft is not under torque and at least two of the adjacent raised shapes move toward each other when the shaft is under torque.” First, the element of “generally noncontiguous raised shapes” cannot be anticipated by slots, which are not raised. Second, in the shaft of Lundquist, two adjacent slots do not, so far as Appellant can determine, move toward each other when the shaft is under torque. The slots may narrow or collapse but are still separated by the material of the intervening catheter section. If the catheter sections between the slots are interpreted as the raised shapes, they cannot be said to generally noncontiguous.

Claim 26, which was rejected as anticipated by Lundquist, recites “wherein adjacent raised elements are separated by a channel therebetween.” However, if slots 41 of Lundquist are considered to be the raised pattern, how can adjacent slots be separated by a channel (or slot) therebetween? The claim language illustrates that the interpretation of a raised pattern as a pattern of slots, as the Examiner has done, is impermissibly broad. Likewise, claim 28, which recites “wherein adjacent raised elements contact one another when the shaft is under torsion,” cannot be anticipated by a pattern of slots that do not contact each other.

Likewise, claim 32 recites “a plurality of raised elements integral with and extending from the outer surface, wherein adjacent raised elements are separated when the shaft is not

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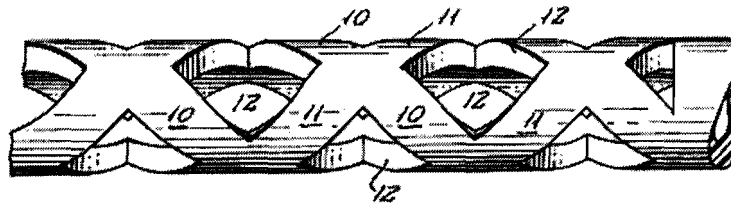
<sup>4</sup> Final Office Action, page 2

<sup>5</sup> MPEP 2111.01 citing *Phillips v. AWH Corp.*, 75 USPQ2d 1321 (Fed. Cir. 2005) (*en banc*).

under torsion.” A slot cannot be reasonably said to be a raised element extending from the outer surface of a shaft. One can call a slot an element extending into the outer surface of a shaft, but once the element is a raised element and the preposition is “from” rather than “into”, slots are not reasonably encompassed by the claim language. For at least these reasons, Appellant respectfully submits that the pending claims are not anticipated by Lundquist.

With regard to Tittel, the reasons discussed above with respect to Lundquist apply as well. Tittel, like Lundquist, discloses shafts with a pattern of holes or a slot therein. The Examiner wrote “At best seen in fig. 2, Tittel does disclose a raised pattern 12 of generally noncontiguous element which disposes on the outer surface 1.”<sup>6</sup> This figure is reproduced here:

FIG. 2.



Tittel describes element 12 as “diamond-shape perforations.”<sup>7</sup> Appellant respectfully submits, for the reasons discussed at length above, that one cannot reasonable say that these perforations, extending through the wall of the catheter, constitute “a raised pattern” or “a plurality of raised shapes” or “a plurality of raised elements” as recited in the claims. Likewise, Appellant respectfully submits that one cannot reasonably describe those portions of the catheter remaining as generally noncontiguous. For at least these reasons, Appellant submits that the pending claims are not anticipated by Tittel.

Claims 6-10 and 15-19 were rejected as being unpatentable over Lundquist. These claims are generally directed toward species where the raised pattern is formed in a specific manner. Claim 14 was rejected as being unpatentable over Lundquist in view of Moore et al. (U.S. Patent No. 4,669,465). Claim 14 is directed to a species where the catheter is a balloon catheter and Moore et al. teach a balloon catheter. For at least the reasons discussed above with respect to anticipation by Lunquist, Appellant respectfully submits that these claims are not obvious over Lundquist.

<sup>6</sup> September 13, 2006 Office Action, Page 5.

<sup>7</sup> Tittel, 2:52.

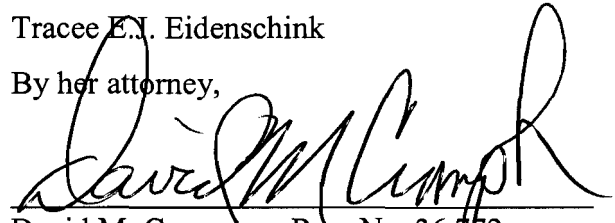
In sum, when the terms "raised," "raised pattern" and the like are given a permissible interpretation, it is clear that neither Lundquist nor Tittel anticipate the pending claims. One of ordinary skill in the art would not reasonably say that a slot, hole or perforation is raised or say that a pattern of slots, holes or perforations can constitute a raised pattern. For at least this reason, Appellant respectfully submits that neither Lundquist or Tittel anticipate any of the pending claims.

For at least the reasons mentioned above, all of the pending claims are allowable over the cited prior art. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Tracee E. Eidenschink

By her attorney,

  
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